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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Ronald D. Olsen

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EXAMINER

CHEN, TSE W

ART UNIT

PAPER NUMBER

2116

MAIL DATE

DELIVERY MODE

10/23/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/835,034

Applicant(s)

OLSEN ET AL.

Examiner

Tse Chen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 35,38-40,43-45 and 48-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 35,38-40,43-45 and 48-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 13, 2007 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 35, 38, 40, 43, 45, 48, 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kinkade, US Patent 6360329, and further in view of Thayer, US Patent 5297275.

4. In re claim 35, Kinkade discloses a method for timing multiple events using a single timer [col.1, ll.15-18; col.3, ll.31-32] comprising:

- Providing a clock [hardware clock] capable of indicating a current time [col.5, ll.14-18].
- Receiving a plurality of time durations each having a respective duration [timeout value *toV*] [col.2, ll.1-2; col.3, ll.21-28].
- Determining an expiration time [*exptime*] of each time duration based on a respective event received time [*curtime*] and said respective duration [col.14, ll.43-44].

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- Determining which expiration time of said time durations is first to occur relative to said current time [col.3, ll.31-35].
- Establishing a start time [curtime] based on the current time when said first to occur expiration time is determined [col.16, l.66 – col.17, l.2].
- Determining a time period [remtime] based on a difference between said start time and said first to occur expiration time [col.16, l.66 – col.17, l.2].
- Providing said single timer [timing service] [col.5, ll.14-21].
- Timing said timer period with said timer [col.17, ll.24-26].
- Transmitting an action signal [e.g., processes and expirations of timers involve signals] corresponding to said time duration having said first to occur expiration time when said time period has expired [col.3, ll.21-35; col.17, ll.9-14].
- Receiving an additional time duration having an additional expiration time while said single timer is timing said time period [col.14, ll.55-56].
- Determining if said additional expiration time will occur sooner than said first to occur expiration time [col.14, ll.55-56; i.e., ordered list of expirations].
- Establishing a new start time based on a current time when said additional expiration time is determined to occur sooner than said first to occur expiration time [col.16, l.66 – col.17, l.2].
- Determining a new time period based on a time difference between said new start time and said additional expiration time [col.16, l.66 – col.17, l.2].
- Timing said new time period with said single timer [col.17, ll.24-26].

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- Transmitting an action signal corresponding to said additional time duration [col.3, ll.21-35; col.17, ll.9-14].

5. Kinkade did not disclose explicitly the time period is based on a difference between said start time and said first to occur expiration time minus an amount of time to send an action signal.

6. Thayer discloses a method for timing multiple events [fig.8] comprising determining a time period based on a difference [4 and 5; period from 1 to 3] between said start time [1] and said first to occur expiration time [3] minus an amount of time to send an action signal [resolution; period from 2 to 3 – i.e., 5] [fig.1; col.1, ll.13-25].

7. It would have been obvious to one of ordinary skill in the art, having the teachings of Kinkade and Thayer before him at the time the invention was made, to modify the system taught by Kinkade to include the well known teaching of Thayer, as the consideration of resolution time to send an action signal is well known in the art and suitable for use in the system of Kinkade. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to define appropriate response periods [Thayer: col.1, ll.13-25].

8. In re claim 40, Kinkade and Thayer discloses each and every limitation as discussed above in reference to claim 35. Kinkade and Thayer discloses a set of instructions [computer program] residing in a storage medium [inherently, some storage medium is required to store a computer program] [col.17, ll.57-60].

9. In re claim 45, Kinkade discloses each and every limitation as discussed above in reference to claim 40. Kinkade discloses a system comprising a processor, a memory, [inherently, some memory and processor are required to run a computer program] [col.17, ll.57-

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60], a clock capable of indicating a current time [hardware clock], and a single timer [col.3, ll.31-32].

10. As to claims 38, 43, 48, Kinkade discloses, comprising after transmitting said action signal, determining an expiration time that is next to occur relative to said current time; establishing a second start time based on a current time when said next to occur expiration time is determined; determining a second time period equal to the time difference between said second start time and said next to occur expiration time; providing a timer; timing said second time period; and transmitting a second action signal corresponding to said time duration having said next to occur expiration time [col.14, ll.55-56; col.16, ll.55-57; col.17, ll.26-27; continues processing of rest of ordered event list].

11. As to claim 50, Kinkade discloses, wherein said timer comprises a software module [col.5, ll.23-37].

12. Claims 39, 44, 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kinkade and Thayer as applied to claim 35 above, and further in view of Cave, U.S. Patent 6314524.

13. Kinkade discloses each and every limitation as discussed above. Kinkade did not discuss the details for handling repetitive events.

14. Cave taught an invention to time multiple events, the invention comprising of:

- Checking a first indicator upon transmitting said first action signal, said first indicator corresponding to whether said action signal should be sent again [fig.3; 301].
- Determining a second expiration time for resending said action signal if said first indicator indicates that said action signal should be sent again [fig.3; 305].

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15. It would have been obvious to one of ordinary skill in the art, having the teachings of Cave, Kinkade and Thayer before him at the time the invention was made, to modify the system taught by Kinkade and Thayer to include the well known teaching of Cave, as the handling of repetitive events is well known in the art and suitable for use in the system of Kinkade and Thayer. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to handle repetitive events needed in applications such as computer screen updates [Cave: col.2, ll.40-67].

Response to Arguments

16. Applicant's arguments filed September 13, 2007 have been fully considered but they are not persuasive. Applicant argues that Kinkade did not disclose "timing multiple events using a single timer". Examiner disagrees and submits that Kinkade discloses timing multiple events using a single timer in at least column 3, lines 31-32. Furthermore, Examiner submits that the claimed "timer" is broad and can be interpreted to encompass a timing service with various incremental wheels [seconds, hours, etc.] just as a typical mechanical watch timer may have various wheels to move the associated seconds and hours hands.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tse Chen whose telephone number is (571) 272-3672. The examiner can normally be reached on Monday - Friday 9AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rehana Perveen can be reached on (571) 272-3676. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, consisting of a stylized 'T' and 'C' followed by a long horizontal line.

Tse Chen
October 9, 2007